Draw a Balance Scale: Label Parts and Compare Masses

Original tasks 1, 2, 3 / complete keys

Task 1

Draw a level balance with two blocks in each pan. Label beam, fulcrum, pan and pointer, and state which side is heavier.

Answer: The beam is level, the pointer stands at the reference mark, and neither side is heavier because both pans hold two blocks.

Reason: Equal block counts mean equal mass, so the beam does not tilt and the pointer stays centered.

Check: Count two blocks in each pan, confirm the beam is level, and confirm all four labels are present and close to their parts.

Task 2

Draw a balance tilted left with four blocks in the left pan and one block in the right pan. Label the parts and state which side is heavier.

Answer: The left pan is heavier because four blocks is more than one. The beam tilts down on the left and the pointer leans left.

Reason: Compare counts: 4 is greater than 1, so the left side has greater mass and its end drops.

Check: Recount four left and one right, confirm the left end is lower, and confirm the pointer leans left.

Task 3

Draw a balance tilted right with one block in the left pan and three blocks in the right pan. Label the parts and state which side is heavier.

Answer: The right pan is heavier because three blocks is more than one. The beam tilts down on the right and the pointer leans right.

Reason: Compare counts: 3 is greater than 1, so the right side has greater mass and its end drops.

Check: Recount one left and three right, confirm the right end is lower, and confirm the pointer leans right.

Draw a Balance Scale: Label Parts and Compare Masses

Original tasks 4 / complete keys

Task 4

Draw two balances side by side. In the first, put five blocks left and two right. In the second, put two blocks left and five right. Label the parts and state which side is heavier in each drawing.

Answer: In the first drawing the left pan is heavier because five is more than two. In the second drawing the right pan is heavier because five is more than two.

Reason: Each drawing is compared separately by block count. The greater count determines the heavier side and the tilt direction.

Check: Check each drawing independently: count blocks, confirm the beam tilts toward the greater count, and confirm the pointer leans the same way. Confirm both drawings use the same beam length and pan size.

Draw a Balance Scale: Label Parts and Compare Masses

Source rubric / reflection

- [ ] Beam is drawn as a straight line with a marked midpoint.
- [ ] Fulcrum is shown at the midpoint and labeled.
- [ ] Each pan hangs from a beam end and is labeled.
- [ ] Pointer rises from the fulcrum and is labeled.
- [ ] Tilt direction matches the greater block count in each state.
- [ ] Block counts are consistent and countable.
- [ ] Labels use baseline-to-midline x-height for lowercase letters and sit close to their parts.
- [ ] A short heavier-side label appears under each drawing.

Reflection: What did you check, what did you change, and what will you try next?